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POSTAL REGULATORY COMMISSION WASHINGTON, DC 20268-0001

First-Class Mail and Periodicals Service Standard Changes, 2021 Docket No. N2021-1

REBUTTAL TESTIMONY OF STEVE HUTKINS

(SH-RT-1)

June 2, 2021

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Supporting documentation

I sponsor the following USPS Library Reference that associated with my testimony: SH-LR-N2021-1-1: "Data Sets for Maps Illustrating Changes in Service Standards."

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I. AUTOBIOGRAPHICAL SKETCH

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2	My name is Steve Hutkins. I am a retired English professor who taught at the
3	Gallatin School of New York University from 1977 to 2017. I received a bachelor's
4	degree in English from the University of Wisconsin-Madison in 1975, a master's degree
5	in English from N.Y.U. in 1977, and a Ph.D. in English, also from N.Y.U., in 1986. I
6	became a tenured Associate Professor at the Gallatin School in 1995. In 1998 I was a
7	recipient of the N.Y.U. Distinguished Teaching Award. I also taught as a Visiting
8	Professor at Vassar College in 1987-1989. I have taught courses on a range of
9	literatures, from Greek and Renaissance classics to postmodern fiction, travel writing
10	and literary geography.
11	When the Postal Service announced plans to close thousands of post offices in
12	2011, I became interested in postal matters and started a website,
13	savethepostoffice.com. Over the past decade, I have written about a variety of postal
14	issues, from post office closings and suspensions to service standards and
15	performance. I devoted many articles to Docket No. N2012-1, which considered the
16	Postal Service's request for an advisory opinion concerning a change in service
17	standards as part of Network Rationalization. One of my articles about post office
18	closures and their impact on rural communities is cited in the 2018 Task Force report of
19	the Treasury Department. ¹
20	Several of the articles on my website have involved creating maps, such as facility
21	location maps that show where post offices or processing plants might be closing. The

¹ United States Postal Service: A Sustainable Path Forward: Report from the Task Force on the United States Postal System (December 4, 2018), p. 15, fn. 51.

website currently has a dashboard on service performance, which provides access to

2 performance reports filed with the Commission, Congress, and the courts as well as

3 background information to help contextualize and interpret the performance data. The

website also has a dashboard on N2021-1, which provides easy access to materials in

the docket as well as charts and maps to assist those interested in following the

Commission's proceedings.

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I have previously submitted comments to the Commission regarding post office closings, annual compliance reviews and service performance reports. For example, I submitted comments on PI2016-2 concerning the Commission's jurisdiction over post office closings.² More recently, I submitted a motion for an information request asking the Postal Service to submit weekly service performance reports.³

² PI2016-2, Initial Comments of Steve Hutkins on the Commission's Jurisdiction Over Post Office Closings (Feb. 4, 2016) and Reply Comments of Steve Hutkins on the Commission's Jurisdiction Over Post Office Closings (March 29, 2016)

³ ACR 2019, Motion for Information Request regarding Service Performance Reports (August 21, 2020).

II. PURPOSE OF THE TESTIMONY

The purpose of my testimony is to provide the Commission with visual representations of what the proposed service standards would look like at the level of individual SCFs and at an aggregated national level. The Postal Service provides maps of service standards for SCFs on its PostalPro website, and these are very useful not only for mailers but also for the public.⁴ I have often referred journalists to these maps to help explain what service standards look like in actual practice.

When I was reviewing the Postal Service's technical description of the proposed service standards, with all the details about drive-times, distances and postal operations, it became apparent that maps would help visualize the proposal. As I began making maps of the standards for specific SCFs, I saw that there was a considerable degree of variation. For example, for SCFs located near the middle of the country the area that would fall under a 5-day service standard tended be much smaller than was the case for SCFs located along the coasts.

This raised a question that had not occurred to me before: Would the service standards be unfair to some people just because of where they lived? With that question in mind, I made a few additional maps that I believe shed some light on the issue.

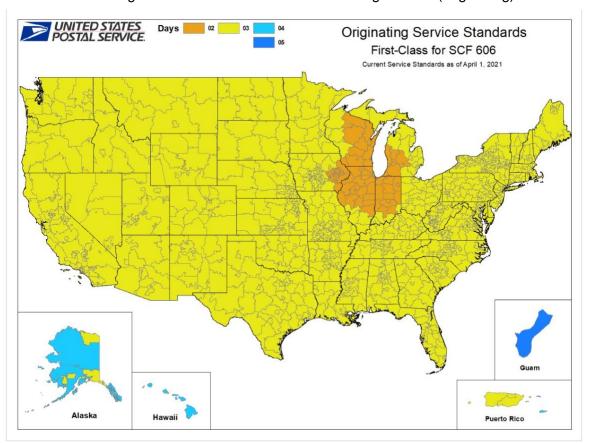
⁴ Available at https://postalpro.usps.com/ppro-tools/service-standards-maps.

III. THE MAPS

A. Mapping Service Standards

The service standard maps on the Postal Service's PostalPro website color code every origin-destination pair for each SCF, enabling one to readily see what areas fall under which standard. Here is the PostalPro map for First Class mail originating out of SCF Chicago IL 606. The area in orange is subject to a 2-day standard; the rest of the contiguous U.S. falls under a 3-day standard (yellow), as do parts of Puerto Rico and parts of Alaska; the remaining areas are 4- or 5-day (sky blue and blue).





Each of the maps for First Class mail, originating and destinating, looks like this 1

- 2 map of SCF 606 in the sense that they all have a 2-day area of about the same size,
- with the rest of the contiguous 48 states under a 3-day standard. In that respect, the 3
- current system applies uniformly to the entire contiguous U.S. 4
- 5 With the data provided by the Postal Service in Library Reference USPS-LR-
- 6 N2021-1-1, one can make similar maps showing the service standards being proposed
- by the Postal Service. Here is the map for SCF Chicago IL 606. 7

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Figure 2. Origin SCF Chicago IL 606 Proposed Service Standards

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For SCF Chicago, the 2-day area (orange) will get significantly smaller than it is now (about a third of its current size), and the 3-day area (yellow) will no longer cover the rest of the contiguous 48 states. Instead, a large area will become 4-day (sky blue), and the Pacific region, furthest from Chicago, would become 5-day (blue). Thus, for mail

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from Chicago to California (where all SCFs are colored in blue), the sender and 1 2 recipient would experience a 5-day delivery standard.

Most of the maps for SCFs in the central part of the country look similar to this map for Chicago, with large areas of 3-day and 4-day service standards and a small area with 5-day service. Depending on where they are located, however, other SCFs would see large areas with a 5-day standard. Here's the map for SCF Washington DC 200.



Figure 3. Origin SCF Washington DC 200 Proposed Service Standards

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While a relatively small area fell within the 5-day zone for SCF Chicago, for SCF Washington DC most of the West falls within the 5-day standard. Thus, based on a count of possible destinations for letters that customers send, mailers in Washington DC are more likely to encounter a 5-day service standard than mailers in Chicago.

For origin SCFs in the West itself, the destination area falling under a 4- or 5-day standard encompasses almost the entire country, as seen in this map for SCF Seattle

3 WA 981.

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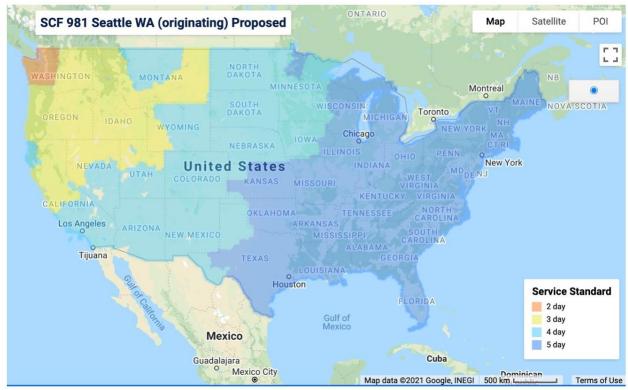
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Figure 4. Origin SCF Seattle WA 981 Proposed Service Standards



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For mail originating in SCF Seattle, the area that would fall under a 3-day standard is much smaller than it would be for Chicago and Washington DC, and the area under a 5-day standard would be significantly larger. For mailers in SCF Seattle, 4-day service begins as close as Southern California. Five-day service starts in Kansas and becomes universal in the eastbound direction soon thereafter.

Here is the map for SCF Los Angeles CA 900. It shows that for mailers in Los Angeles, 4-day service begins in Oregon, and 5-day service starts in South Dakota and applies roughly to areas east of the Mississippi River.



Figure 5. Origin SCF Los Angeles 900, CA Proposed Service Standards

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While the individual SCF maps show how each origin or destination SCF will be

- impacted by the proposed changes, the data provided by the Postal Service can be
- 5 used to visualize the proposed changes in aggregated terms. The following maps show
- 6 how origin-destination pairs and volumes would be distributed across the country.

B. ORIGIN-DESTINATION PAIRS

- 8 Each SCF consists of about 900 origin-destination pairs for the contiguous U.S.
- 9 Under the proposal, a percentage of them will be 2-day, a percentage 3-day, a
- percentage 4-day and a percentage 5-day. The following map shows the percentage of
- pairs per SCF that would fall within a 4- or 5-day service standard. (The map combines
- both originating and destinating pairs, so each pair is counted twice.)

Figure 6 Percent of Pairs Shifting to 4 or 5 day Service Standard



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In the western states, as well as southern Florida and parts of Texas, over 75 percent of the origin-destination pairs for each SCF would fall within a 4- or 5-day standard (indicated by the area in red). In fact, in the Pacific states, many SCFs would have over 90 percent of their pairs under a 4- or 5-day standard; for example, SCF Tacoma WA 984 would have 91.37 percent of its pairs (origin and destination) shift to a 4- or 5-day standard. In the Midwest and Northeast, 50 to 75 percent of the pairs would fall within a 4- or 5-day standard (indicated by blue). For SCFs in most of the central and eastern parts of the country, fewer than 50 percent of the pairs would be 4- or 5-day (green and yellow). In some cases, such as the SCFs in Kentucky and Ohio, fewer than 30 percent of the pairs would be 4- or 5-day. (See SH-LR-N2021-1/1, tab "Fig 6 % Pairs SSD 4 or 5.")

- The following map focuses on where the 5-day origin-destination pairs will occur.
- 2 As with the previous map, this map combines both originating and destinating pairs.

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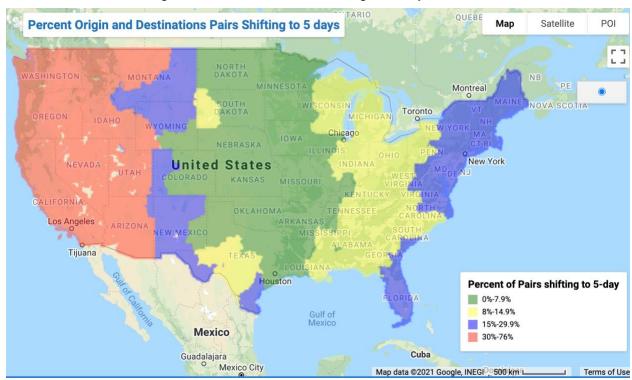
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Figure 7. Percent of Pairs Shifting to 5-day Standard



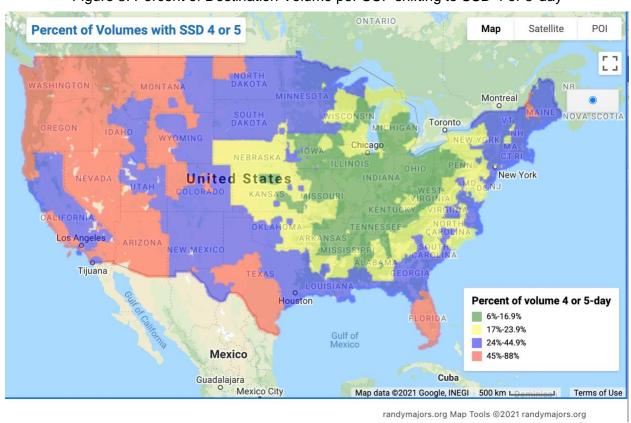
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In the Midwest, fewer than 8 percent of the origin-destination pairs would shift from 3-day to 5-day; in the western states, over 30 percent of the pairs would be downgraded to 5-day. For SCF Lincoln NE 683, only one origin-destination pair would shift to a 5-day standard, 0.06 percent of the total. For SCF Eureka CA 955, over 75 percent of the pairs would shift to a 5-day standard. (See SH-LR-N2021-1/1, tab "Fig 7" Pairs SSD 5.")

C. DAILY VOLUMES

The Postal Service has provided daily volumes for First Class mail for each origin-destination pair.⁵ If these volumes are aggregated by service standard, one can calculate the percentage of the total volume destined for each SCF that would fall within each standard. The following map shows the percentage of volume destined to each SCF that would shift to a 4- or 5-day service standard under the proposal.

Figure 8. Percent of Destination Volume per SCF shifting to SSD 4 or 5-day



In this map, green indicates SCFs where 6 to 16.9 percent of volumes would be downgraded to a 4- or 5-day standard; yellow indicates where 17 to 23 percent of volume destined to the SCF would shift to a 4- or 5-day service standard; blue indicates

⁵ The volume numbers are from the second highest Wednesday volume in March 2020, as explained in witness Hagenstein's testimony, USPS-T-3, at 8, lines 16-17.

where 24 to 44.9 percent of volumes would be 4- or 5-day; and red indicates where 45

to 88 percent of volumes would be 4- or 5-day. For SCF Springfield IL 627, 7.7 percent

3 of the volume would fall under a 4- or 5-day standard. For SCF Reno NV 895, 78

percent of volumes would be 4- or 5-day. (See SH-LR-N2021-1/1, tab "Fig 8 % vol SSD

5 4 or 5.")

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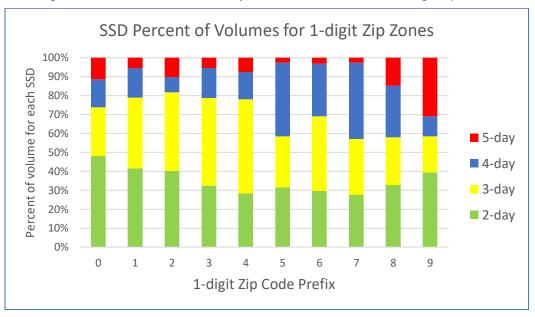
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The following chart shows the percent of volumes for each service standard as they would occur in each of the ten 1-digit zip zones. The chart combines originating and destinating volumes for each SCF (each piece is counted twice).

Figure 9. Percent of Volumes by Service Standard and 1-digit zip zones



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The regions with a prefix of 1 to 4 would have about 20 percent of their volumes shifted to 4 or 5 days, while zones 5, 7, 8 and 9 would have over 40 percent of their volumes downgraded to 4 or 5 days. Overall, Zones 0 to 8 would have about 6.4 percent of their volumes shifted to a 5-day standard. For zone 9, the Pacific region, almost 31 percent of mail volumes would be downgraded to a 5-day standard. (See SH-LR-N2021-1-1, tab "Fig 9 % vol SSD & 1-digit.")

D. AVERAGE DELIVERY TIME

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One of the metrics used by the Postal Service is average delivery time. The current average delivery time, based on service standards, is about 2.6 days. The following map shows average delivery times across the country under current standards. (It combines both originating and destinating volumes.) The areas in green and yellow represent SCFs where the average delivery time is below the national average; the areas in blue and red show SCFs where the average delivery time is above this average.

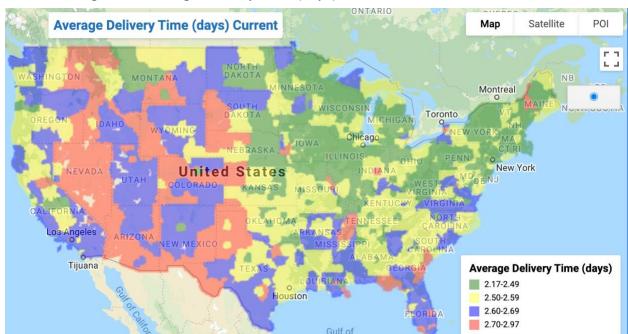


Figure 10 Average Delivery Time (days) under Current Service Standards

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Map data ©2021 Google, INEGI 500 km L

Under current standards, average delivery times range from about 2.17 days to 3 days. While higher numbers tend to occur mostly in the west and southern parts of the

Mexico

⁶ USPS-LR-N2021-1-9, tab "FCM Delivery Day Change Calc"

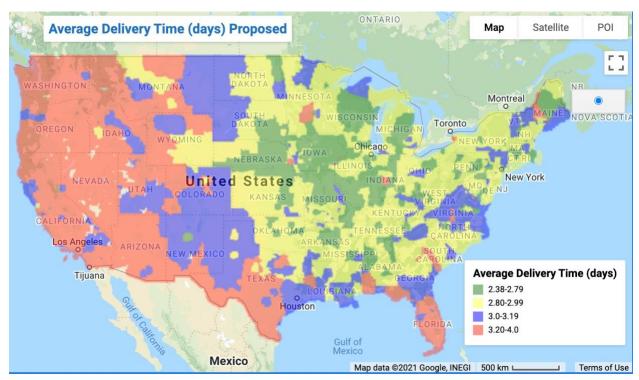
- 1 U.S., the map is for the most part highly variegated. Under the proposed changes in
- 2 standards, however, the differences between regions will become more pronounced, as
- 3 shown in the following map.

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Figure 11. Average Delivery Time (days) under Proposed Service Standards



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Under the proposal, average delivery time will increase to approximately 3 days.⁷

- 7 On the map, the areas in green and yellow are below this average while the areas in
- 8 blue and red are above it. The averages for individual SCFs range from 2.38 to 4 days.
- 9 For SCF Madison WI 537, average delivery time would be 2.46 days, while SCF Las
- 10 Vegas NV 890 would have an average delivery time of 3.89 days. (See SH-LR-N2021-
- 11 1-1, tab "Fig 11 ADT Proposed.")

⁷ USPS-LR-N2021-1-9, tab "FCM Delivery Day Change Calc"

The average delivery time nationwide will increase by approximately 18 percent.

- 2 This average conceals significant variation. The following map shows the percentage
- 3 increase in average delivery time for each SCF. In this map, the green and yellow areas
- 4 indicate areas where the average delivery time would increase by less than the
- 5 nationwide average of 18 percent. The blue indicates areas where average delivery
- 6 time would increase 18 to 26.9 percent, and the red indicates areas where the average
- 7 delivery time would increase 27 to 40 percent.

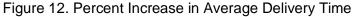
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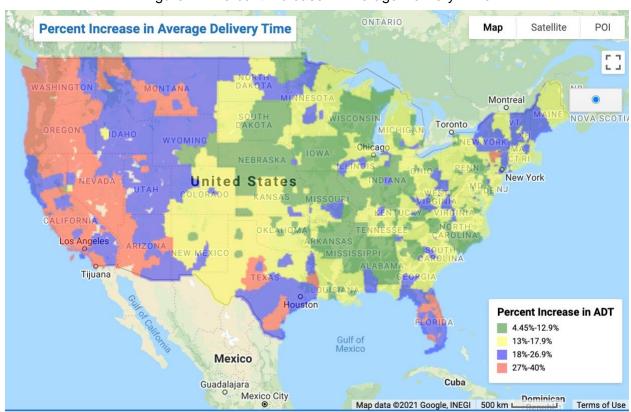
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Under the proposal, average delivery time for SCF Quincy IL 623 would rise from 2.46 to 2.59 days, an increase of 5.24 percent, while for SCF Sacramento CA 956 average delivery time would rise from 2.85 days to 3.99, an increase of 40 percent. For

- zip codes with a 1-digit prefix of 6, average delivery time will increase 12.7 percent,
- while for the zip codes with a prefix of 9, the increase will be 27.7 percent. (See SH-LR-
- 3 N2021-1-1, tab "Fig 12 ADT % Increase.")

E. MODE MAPPING

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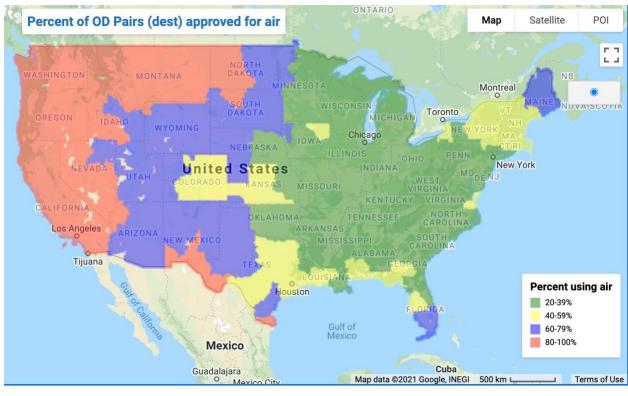
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Another way to visualize the proposed standards is by looking at transportation mode. In USPS-LR-N2021-1-1, the Postal Service has provided an Excel sheet showing what mode, air or surface, is approved for each origin-destination pair. (It includes not only the contiguous 48 states but also Alaska, Hawaii, and territories, for a total of about 930 pairs rather than about 900 for the contiguous U.S.) With this data, one can prepare the following map. It shows the percentage of air pairs for each destinating SCF.

Figure 13. Percent of OD pairs using air (current)



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In this map, green indicates where the Postal Service uses air transportation for 20 to

4 39 percent of the origin-destination pairs; yellow, 40 to 59 percent; blue, 60 to 79

percent, and red, 80 to 100 percent. For SCF Nashville TN 370, about 21 percent of the

pairs are designated air mode, while for SCF Bismarck ND 585 and SCF Yakima WA

989, over 90 percent of the mail arrives using air transportation. (See SH-LR-N2021-1-

1, tab "Fig 13 % Air Mode.")

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This map illustrates just how dependent people living in the western half of the country are on air transportation in order to see delivery within a 3-day service standard. As the Postal Service phases out air transportation for First Class mail, it will have the greatest impact on those areas that use it most.

IV. CONCLUSION

These maps show how some areas of the country will have more origin-destination pairs and more mail volume downgraded to a 4- or 5-day standard than other areas will see. The maps, as well as the spreadsheets used to make them, show that while the average delivery time for the country as a whole may increase 18 percent, the increases will not be uniform. Some places will see much larger increases than others. In general, it will be the western states, as well as the country's "extremities" — Maine, Florida, and southern Texas — that experience the changes most deeply.

Whether or not these variations in regional difference are consistent with the goals of 39 U.S.C. § 403(c) and 39 U.S.C. § 101(a) is for the Commission to determine. The aim of my testimony has not been to make that argument but rather simply to provide evidence that may help make such a determination. I hope that the Commission finds the maps as useful as I have in understanding and evaluating the implications of the proposed service standards.

V. APPENDIX: METHODOLOGY

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- The maps in this testimony were created using two library references filed by the
- 3 Postal Service: USPS-LR-N2021-1-1, tab "1_P.Mode_Mapping_Public.xlsx," and
- 4 USPS-LR-N2021-1-3, tab "3_Zip3_OD_Pairs.xlsx." Generally speaking, the maps were
- 5 produced by filtering, extracting and aggregating data from these two spreadsheets, and
- then using a mapping tool available at randymajors.org to make the maps themselves.8
- 7 Library Reference SH-LR-N2021-1-1 contains spreadsheets that can be used to
- 8 replicate the maps by copying and pasting the three columns on the far right of each
- 9 sheet to Google Drive and then following the instructions on the randymajors.org
- website. Below are further details about each figure in the testimony.
- Figure 1. The source for the map of SCF Chicago IL 606 is PostalPro.⁹
- 12 Figures 2 5. Maps for the proposed service standards for SCF Chicago IL 606, SCF
- Washington DC 200, SCF Seattle WA 981, and SCF Los Angeles 900 were made by
- extracting the 903 rows for the originating zip, assigning a color for each service
- standard, copying the table to Google Drive, and then following the instructions on the
- 16 mapmaking website.
- 17 Figure 6. Percent of origin-destination Pairs Shifting to a 4- or 5-day standard. This map
- was made by aggregating the total number of 4-day and 5-day pairs in each SCF, then
- calculating the percent of total pairs (903) that were 4- or 5-day, and then assigning the
- 20 percentages to a range for mapping purposes. The data set here includes both origin

⁸ Available at https://www.randymajors.org/

⁹ Available at https://postalpro.usps.com/ppro-tools/service-standards-maps

and destination pairs, so each pair is counted twice. The ranges were determined by

- 2 dividing the 900 SCFs into four groups of roughly equal size, while at the same time
- 3 trying to make the dividing points as simple as possible.
- 4 Figure 7. Percent of origin-destination Pairs Shifting to a 5-day standard. This map was
- 5 made in the same way as Figure 6, but by aggregating only the 5-day mail rather than 4
- 6 and 5-day.
- 7 Figure 8. Percent of Volume Shifting to a 4- or 5-day standard. This map was made by
- 8 aggregating the total destinating volume for the pairs with a 4- or 5-day standard, then
- 9 calculating the percentages of total volumes for each SCF that would be 4- or 5-day,
- and then assigning the percentages to a range for mapping purposes.
- 11 Figure 9. Percent of Volumes by Service Standard and 1-digit zip zones. This chart was
- made by adding up the originating and destinating volumes for each service standard
- for all the SCFs within each 1-digit-prefix zone, and then calculating the percentages of
- total volume per service standard for each zone.
- 15 Figures 10 and 11: Average Delivery Times Current and Proposed. In USPS-LR-N2021-
- 16 1-9, witness Monteith presents the Postal Service's calculations for the average delivery
- 17 time currently and under the proposed standards. 10 To calculate average delivery time,
- the Postal Service multiplies the daily volume for each service standard by the number
- of days for the corresponding service standard, then adds up the numbers and divides
- 20 by the sum of the volumes. in order to make the maps in Figures 10 and 11, I used the

¹⁰ LR-N2021-1-9, tab "FCM Delivery Day Change Calc."

same method to calculate the average delivery time for each SCF. Since the delivery

- times are different for originating and destinating mail, my method incorporated both, as
- is the Postal Service's practice when it prepares aggregation data for service
- 4 performance reports. Using this method, the cumulative averages of the average
- 5 delivery times are identical to the averages presented in LR-N2021-1-9: 2.5693 days for
- 6 current and 3.0508 for proposed. (It may be noted that using service standards to
- 7 calculate average delivery time arrives at a hypothetical number, since it doesn't
- 8 incorporate actual delivery times as presented in service performance variance reports.
- 9 Since it is not possible to know the actual variance data for the proposed service
- standards, this second method is not available.)
- 11 Figure 12: Percent Increase in Average Delivery Time. This map compares the data
- used for Figures 8 and 9 to show how much average delivery time will increase for each
- destinating SCF. It was made by calculating the percentage increase from current to
- proposed and then grouping the SCFs by percentage range for mapping purposes.
- 15 Figure 13: Transportation Mode. This map was made using USPS-LR-N2021-1-1, tab
- 16 "1 P.Mode Mapping Public.xlsx," by adding up the origin-destination pairs currently
- approved for air transportation for each SCF, calculating the percent of total pairs for
- 18 each SCF, then dividing percentages into four groups, and then color coding for
- 19 mapping purposes.